

[Ata Island]

Gifford—Tongan Society

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bodies he returned to Nomuka, where he performed his inhuman orgies in a cave, which is said to be still full of the bones of his many victims. The peopling of the distant island, called Pylstaarts, about ninety miles to the south of Tongatabu, is attributed to this cause. In the depth of a dark and stormy night, Uhila effected a landing upon the island of Atata, one of the Tonga group. To escape his murderous attack, a party of the inhabitants hastily manned a *namatefua*, or single-sailing canoe, which happened to be moored on the lee side of the island. Hoisting the sail, they bore away, intending to make for the adjacent coast of Tongatabu. This, however, they were unable to do, owing to the darkness and the increasing storm. They were carried they knew not whither. They seemed only to have escaped one kind of death to meet with another. But the wind and sea carried them straight upon *Ata*, the Pylstaarts Island of the charts, where the little company grew into a Tonguese colony, which has, in recent years, claimed kindred with Tonga, and has received, in return, the blessing of the Gospel.

What follows concerning *Ata* has been derived entirely from modern Tongans, mostly former inhabitants of that island now residing in Eua Island, and also from Leha, the carpenter for Pangia, the last Tui Tonga's descendant.

The Tongan name is really 'Ata, which means reflection. *Ata* is the title of a great chief, which means dawn. Another name is *Atā*, which is the name of the island close to Tongatabu. This name means more room, expanding, and evidently has reference to the mythical origin of this island, which is believed to have arisen spontaneously from the depths of the sea and to be the first island of the Tongan archipelago to appear above the face of the waters.

Ata is a very steep, volcanic island. The anchorage is on the west side of the island and from the beach a trail leads upward. There was but one town on *Ata* and it was called Kolomaile, literally Myrtle town. It was divided into three sections: Hihifo (the west end), Auloto, and Pea. Pea was apparently named after the village of Pea in Tongatabu. The reason for so believing will appear later when I recount the story of the visit from the god of Pea to *Ata*. The people of *Ata* did not live on their farms as did Tongans elsewhere but lived together in the town. Each of these three divisions of the town had a district of its own for farming. Whether or not each district was divided into individual family holdings could not be determined.

The traditional discovery of *Ata* is attributed to the diviner Hama (16, p. 52). Apparently some time later the island was visited by a man named Motuapuaka, who eloped to *Ata* with the Tui Tonga's daughter named Tapuosi. Motuapuaka is said to have earlier sighted the island while fishing for bonito, so when he eloped with Tapuosi he headed for the island as a likely place of refuge from the wrath of the Tui Tonga. According to two informants from *Ata* there were already aborigines upon the island when Motuapuaka and Tapuosi arrived. The details of their adventures upon arriving at *Ata* were related by Tupouata, a descendant of the principal chief of the island, the Tui *Ata*. According to one informant there

539 Pulotu into three departments, is it not possible that Pulotutuumau, which the poet
76 regards as the destination of the Tui Tonga, may be a pleasanter place than Pulotuaka-
643 aka, to which Tukulua refers with evident repugnance. There is always the possibility
[715] of simply descriptive epithets being applied to the same Pulotu.

12. In *asi-hau*, attendants of the *hau* (king), it is interesting to have a clear
[715] example of the application of the word *hau* to the Tui Tonga. *Hau* indicates kingship,
[715] lordship actually manifest in power and rule, rather than chieftainship which is the
[715] prerogative of birth. In the later days of the Tui Tonga, when his power was
[715] becoming gradually overshadowed by the growing might of the Tui Kanokupolu, the
[715] word *hau* was more often used of the more powerful king, and on occasion even of
[715] other chiefs who happened for the time being to have won preeminence through military
[715] virtue.

13. As Vavau is the northern group of the Tongan islands, evidently the king's
539 road to Pulotu takes him in a generally northerly direction. It is possible, however,
76 that this is an echo of the Vavau that occurs so widely in Polynesian tradition as
643 one of the stopping places in the migrations. Since the attendants rejoice when Vavau
[715] has sunk out of sight, it is to be presumed that they rejoice because they have entered
[715] on the last stage of the voyage to Pulotu. It is difficult to say whether the king is
[715] regarded as having already made the voyage to Pulotu, or as being about to make it.
[829] The only indication of time is given by *ka* in *ka malua*, which usually marks future, or
[764] indefinite time. I have not heard a period assigned as elapsing between death and the
[764] departure of the spirit; but the tapu on a house in which a death has occurred is
[764] removed by sprinkling water in it a few days after the death; bodies of great chiefs
[764] are kept unburied longer than those of common people; funerary tapu for some high
[764] chiefs were kept in force for as long as a year; occasionally bodies were kept unburied
[764] for months, even for years, apparently as a mark of special affection.

14. Following *ho he* in the manuscript is "etc." Apparently there were other
539 syllables in the refrain.

76 Pages 79-81. Koe Takipo o Nau

643 1. The opening lines refer to scenes pleasant in the life and friendship of Nau.
2. The *takafala* is a tree. The bard and Nau used to sit in its shade.

766 3. This reference is not very clear and many interpretations are grammatically
764 possible. *Toua* and *fiuupalavala* are the names of two kinds of mats, but may be
539 the nicknames of two children who used to run in and out and ask to be taken to the
[829] sea to bathe. Or perhaps it is meant that Nau used to go in and out of the canoe
house. Possibly Nau is the subject and reference is made to two children who used
to ask to be taken to bathe. Or all the lines may refer to Nau, though why she
should desire to be carried to bathe is not very clear. Still there are stories of
chiefly girls who were not permitted to walk, and such stories must have some basis in
fact. The difficulty of interpretation is not lessened by the fact that instead of *fofo*
(both *o*'s short), the word may be read with the last *o* long, as in fact it is marked
in the manuscript, and the meaning is then not "carry," but "grope, feel." When so
many interpretations are grammatically possible it is impossible to decide without some
information about Nau.

4. Koloa, an island and village of ancient fame. The Mani are said by a very
good informant to have belonged originally to Koloa, but the exact relations of the
names Vavau and Haafuluhaio apparently are not very clear to modern Tongans.

76 Pages 81-82. Ulamoleka's poem on the death of Veainu

539 1. Makaunga is in Eua. Falepapalangi and Ulamoleka were together in Eua
when the news of Veainu's death reached them.

2. Two different types of waves.

[36] 3. Obonua is the head village of Eua. A deep gully (the "vale" in the text)
[504] runs down beside the village, and opens into the sea, forming a little boat harbor.
Frequently boats are weather-bound here by the heavy sea running on the bar at the
harbor mouth.

[55] 4. The reference is to Veainu. Finemua is a name for Falepapalangi.

5. Hunga is two steep, lonely rocky islets about twenty miles north of Tongatabu.
Ulamoleka expresses distress and dismay at the death of Veainu, which was not
unexpected when Falepapalangi and Ulamoleka left Tongatabu for Eua.

589 place at sea, a reef, where the *tulu* are plentiful. Probably it is the proper name of a reef or stretch of sea. Halakakala is a fishing ground, a reef, of the Tui Tonga, near Eueiki. Haa Maafu is the Tui Tonga; Haa Ngata, the great house of which the Tui Kanokupolu is head. These may not be literally the names of sea localities, but introduced figuratively, because of the connection he claimed with both these houses. 103
613 Tupou, the title of the Tui Kanokupolu, is also the name of several localities (21). The one whose fame is spoken of is Ulamoleka himself, named in the next line the king of the men of the ocean.

551 31. Here is portrayed the grief and indignation in various localities in Tonga when they hear of the affront that Ulamoleka has suffered.

643 32. Matamoana and Halaivalu are names of two pigeon-snaring mounds in Tonga-tabu.

345 33. Anganangana (Whispering hedge) is said to be a locality in Hihifo, Tongatabu. Probably it is a sanctuary, and the meaning is that the power of the temple has not been sufficiently potent for success in the undertaking.

103 34. Nakau and Fungaana are place names distributed in various parts of the group. Gifford notes a Fungaana in Niua Toputapu. Doubtless there is a Nakau in Niua Toputapu also.

178 35. Luatangata is a star name, and probably so is Alovalu. Vaea is a chief. Luatangata and Alovalu may be the nicknames of chiefs.

103 36. Pouvalu is noted by Gifford as the name of a house of the Tui Tonga.

551 37. A reminiscence of some voyage may be indicated or merely the wide extent of his travels. Probably also a hint is made of his high connections, which extend to Samoa. Tutuila is in eastern Samoa, and the Tui Kanokupolu is connected with the lords of Manua in eastern Samoa. Up until quite recently it was customary for the Tui Kanokupolu to acknowledge the connection by visits to the Tui Manua.

552 38. A sign of good seamanship is to come to the anchorage with the sail, instead of working in with oars. Kolongahau is a famous harbor of the Tui Tonga in Mua.

502 39. Lala is the name of a tree. This launching place is not now known. Evidently it was marked by a lala tree, or by a clump of these trees.

504 40. "I shall no longer base my claim to better treatment on my connection with chiefs; I shall leave that boat of high connection and strike out relying only on my own merits."

824 41. "Even though the way is not so good, yet I shall strike out on it."

103 42. Longoakau and Alakihaafata are the names of localities in which is spread the report of the prowess of Ulamoleka.

226 43. In the bonito fishing if a boat were full of fish, and yet caught more, the tails of the fish which could not be taken to shore were broken off, the mutilated fish were thrown back into the sea and the tails taken as trophies.

44. Haa Loau occurs as a place name in several parts of Tonga. Probably the locality indicated is in Lifuka, Haapai, where is Tongoleleka, mentioned in the next line. A scion of the Tui Tonga house still lives at Tongoleleka.

45. Probably a double strand of meaning is intended: that Ulamoleka's love will be consoled by some other woman, although it has gone through such unquiet waters, and also that his long poem is almost ended, although the bark of poesy has sailed seas of unfriendliness and misrepresentation.

46. The simile of pigeon-snaring is again employed. If there be an uneven number of birds there is great difficulty in netting them, since the odd bird flies hither and thither, seeking a mate and so disturbing all the flock. Hence, the girl Ulamoleka went to marry is a restless pigeon flying about in all directions so that he can not capture her.

47. This line is omitted in the copy printed in Koe Makasini.

48. House of the snarers (*fale feao*) is not the house on the mound where the snaring is actually done, but the house near the mound in which the cooking for the sportsmen was done.

49. "I shall make no further effort to catch this strong, far-ranging pigeon, who does not wish to be caught by me, and perhaps after all I am just as well out of it. One never knows what he has got in pigeon-hunting—and in marriage." The expression *tufa mei vao*, distributed from the bush, means "the catch is not taken home to the village and there gone through and allotted, but the distribution is done on the mound itself, and one does not see very well what he has got, but just takes his luck."

539 Pages 103-104. The environs of Nukualofa

823 1. This poem is assigned, but apparently incorrectly, to Falepapalangi, the bard of Hihifo, who is represented by a number of pieces in this collection. The seventeenth and eighteenth lines and the closing portion of the poem indicate that the composer was a man of Vavau. These lines may be ironical, or meant to indicate that he has become accustomed to the praise of Vavau in his work and has developed a fondness for that part of the group. It is much more probable that the lines about Vavau are to be taken literally. The piece may have been composed by Falepapalangi's great rival Mamaeapoto.

[538] 2. Reckoning from Tonga the "wind from the back of Koloa" would be about northeast.

[103] 3. Tongataepa (Tonga without respect) is a portion of the modern town of Nukualofa, where a number of chiefs lived. The name indicates that the locality was so chiefly that it paid respect to no other locality, but had respect paid to it.

[103] 4. Onemalama was a bathing-place of the chiefs in Tongataepa; it is now filled up.

5. There is a *ngingie uta*, land *ngingie*, and a *ngingie tahi*, sea, or seashore, *ngingie*.

6. Veitata, a pool.

7. Names of localities or compounds.

8. Veimusieua; a pool in Nukualofa, near the home of the chief Ata.

9. This is not a compound, but a clump of *kahikahi*, a fern-like plant.

10. The meaning of this line not clear. A slight emendation, changing *hono* to *hoto*, would give the meaning "my mind has been hidden," which would be in keeping with other lines, indicating the poet's ignorance of some of the localities.

[764] 11. Malaalaoa, in the modern Nukualofa, is a *mala* (burial ground) belonging to the Tui Kanokupolu Mumui and his family.

[764] 12. Faletuipapai is a burial ground belonging to the Tui Kanokupolu Aleamotua and his family. It is alongside Malaalaoa, and the two burial grounds are now joined in one.

539 13. Pulepulekai is the site of the present British Residency and Consulate. There is a cape of the same name in Vavau.

823 14. Tupouveiongo, or simply Veiongo, is the hill on which the Wesleyan Church in Nukualofa stands; it is called, since its application to this Christian use, Saione, Zion. 103 Veiongo (sounding water) is said to have been given to the hill because the sound of flowing water could be heard by placing the ear to the ground.

[368] 15. Felemaka, a locality inland in Nukualofa is now the dwelling of a Wesleyan native minister.

16. Mataloko, Ngallulahi and Sisilouango are the names of headlands or eminences (*matango*) in Vavau.

17. Tatauvalo means the top of the hill Talau in Vavau.

18. Falefilimoto is given by Gifford as a sea-cliff in Vavau. A timber used in house-building is termed *filimoto*.

Pages 104-105. Vavau and Haapai

1. Keitahi and Tausisivavaki are beaches in Vavau.

[776] 2. Lofa is the volcano in Tofua, Haapai. Vailahi (Great water) would seem to be the crater lake of this volcano. That the volcanic cone is in the lake is a peculiar construction. Their being in close association must be understood without pressing the local significance of 'i. It is said, however, that Lofa is the name of the god who lies within the crater and spurts out fire and smoke and stones.

[504] 3. Paluki is a beach, affording excellent anchorage for small boats, in Lifuka, Haapai. Kasivaki is unidentified, but is evidently a place in the same locality.

[551] 4. Loupua (Leaf of *pua*, a plant with sweet-smelling blooms) is a nickname for the king, possibly the King of Haapai. The people of Haapai generally are said to be sometimes called *pua*. Haapai is a cluster of islets, scattered so that its people spend more time at sea than do those of any other part of Tonga. This exposure to wind and weather is said to give them a ruddy complexion, whence the nickname *pua*, for the red blooms of the plant. Pangai is on the island of Lifuka, Haapai.

539 5. When vessels visit Haapai they put in at Lifuka, but it is possible that the remains of the *Port-au-Prince*, in which Mariner arrived in 1806 are indicated. The 823 *Port-au-Prince* was cut out on the sea-front of Lifuka. She was burned, and her final resting place was in shallow water and doubtless a little wreckage was visible. [726]

533 tree; but its Tongan name is Malumatu o Fulilangi (Shade of Fulilangi). It is not
539 known who is the Fulilangi thus distinguished, but the name was not uncommon among
538 the Tui Pelehake, and has also been borne by other chiefs.

822 2. Leolava (Many voices) is probably so-called because people from many parts,
552 including other countries, for example Fiji and Samoa, congregated here in the
entourage of the Tui Tonga.

103 3. The town that is pleasing (*kole fakalata*) is Mua, the Tui Tonga's capital,
644 scene of many pleasures.

504 4. Kolongahau is a stone wharf near the old-time residence of the Tui Haataka-
192 laua. There is also reclamation work here, undertaken when the place became the
192 residence of the Tui Haatakalaui.

5. The word *sunufea ni* is unintelligible. Probably it is the corruption of a
foreign word, not unlikely the English fern. In the last stanza of the poem the line
about the wind from the north includes the word *fea-nini* (fair-wind).

6. "Smooth white sand" is a conjectural translation of *fala-sina*, white mat. The
word *fala*, mat, is often used of smooth sward or sand, and *hina*, not *sina*, is the usual
Tongan form of this word.

Page 118. A song of fragrant flowers

533 1. Nua or Lotonua is a place name. There is a locality called Nua in Mua,
539 the chief village of eastern Tongatabu, and the old seat of the Tui Tonga.

824 2. The names *tuitus*, *laralava*, *nusipalataha*, and *lalahailala* are of various types
103 of leaf and flower ornaments for the neck and bosom. The generic name is *kahoa*.
These, and other flower and leaf ornaments are *kakala* (sweet-smelling things).

3. Other types of flower ornaments are *fakaotusia*, *alamea*, and *fakalotu*;
fakaotusia and *alamea* apparently are decorations for arms and ankles (*vesa*).

4. The *langakali* is a flower.

5. "Sleep in sea-water:" the flowers and leaves of a plant are sprinkled with
sea-water, and left all night (*faka-mohe*) and thus their full fragrance is brought out.
At night the fragrant flowers are placed underneath the wooden pillow, and so sweet
are the scents that they "distract the mind."

6. The double plaiting round the top of the sisi leaf girdle is called *funganiua*,
the bottom one *laloni*, and the flower *hingano* is twined into it.

7. Types of plaiting of the leaf and flower ornaments are termed *veveve*,
tuihiva, *paangapulupaki*, and *fakamatamoana*.

8. To plait blossoms together without stringing on anything is called *koko*.

9. Ribbon, of the inner bark of the *fau* is called *lon*.

103 10. Latai, a pool on the reef, near Laulea, the famous surf-riding place on the
weather coast of eastern Tongatabu.

11. The "town of faded garlands" (*kolo ngatutai*) is Mua, whither at the time
of festivals are brought so many garlands, which finally, are thrown aside and fade.

Page 119. Malokula.

533 1. Tonga, meaning Tongatabu.

539 2. Leaf of *pua* (the King, George Tupou I).

527 3. An enterprise large enough to collect sufficient money.

434 Page 119. Laughter of women

538 1. This probably may be considered as a love poem, at least in part. Direct
expressions of love and passion are extremely rare in Tongan compositions. The
references to sport, fishing, pigeon-snaring, and surf-riding are partly literal and
partly figurative of the pursuit of love, and throughout is the sense of the pleasant-
ness of woman's companionship.

103 2. Finehika is a locality in Mua.

824 3. The *moonia* and the *tiatila* are plants, *tiatila* is said to be like a passion-
flower. Probably both are late introductions.

551 4. *Fuaahola* is the nickname of a chief.

533 5. *Fakimamana*; locality in Mua.

539 6. *Namalata*; place name in Eua (?).

7. *Holaavaka*; beach in Eua (?).

8. *Mohekaelanga*; place probably in Eua.

103 9. *Utulongoa*, the rocky coast of eastern Tongatabu.

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172 down until a natural plane of lateral cleavage was reached. Wooden poles
488 were then used as levers to lift the loose slab from its bed, and other poles
172 were slipped under the slab across the cavity formed by the removal of the
[316] stone. Skid poles were placed transversely across the path over which the
stone was destined to move, and the slab was started on its way to the building
site by means of tug-ropes and unstinted cooperative man power. Levers
were used at places where progress became exceptionally difficult. The
process of hauling stones overland over skidways was called *makafunualoto*;
172 the officer in charge was called *mailau*. A quarry site on Lifuka Island,
316 Haapai, is shown in Plate I.

TRANSPORTATION OF STONE

172 Stone structures were found on islands where no quarries could be
located, and stone quarries on islands where there are no stone structures.
172 That large stones were carried over considerable water distances is evidenced
505 by the fact that no stone structures, aside from one small burial cist, was
found on Motutapu or on any neighboring island closer than Tongatabu,
whereas stones 6 feet wide and 10 feet long have been removed from the
Motutapu quarries.

505 Living informants give the following account, remembered from the testi-
mony of the preceding generation, of how stones were taken from one island
to another:

[501] The boats, at first the *iungiaki* and later the *halia*, were large double-hulled sailing
505 vessels, bridged with spacious decks, quite capable of carrying heavy loads. The vessel
504 was brought as near to the shore as possible without running the risk of grounding, and
505 there anchored to stakes set up on the shore. The anchoring place was usually at the
483 very edge of a coral shelf, extending outward from the main shoreline, which was sub-
merged at high tide and comparatively dry at low tide. The stone was dragged over
skids to the edge of this coral shelf. Heavy wooden poles were then placed each with
one end on the deck of the vessel and the other end crossing the abrupt edge of the coral
shelf. These served as skids over which the stone was dragged onto the deck, where it
was carefully adjusted and balanced, then tied by many ropes radiating from the stone
to various parts of the vessel. In removing the stone from the vessel the reverse order
was used. Some of the smaller stones were carried by groups of men, selected for
their great strength, who placed the stones on the decks of the vessels without the aid
of skids.

173 Certain traditions credit a large vessel named *Lomipeau* with bringing
172 stones to Tongatabu from Uvea (Wallis) Island, for use in the construction
505 of Telea's tomb, *Paepaeotelea* (p. 51). The boat is described as being so
large that its hulls passed on either side of the island of Hungatonga, while
the deck swept over the tops of the trees. As all the stones in Telea's tomb
are coral limestone whereas Uvea is a volcanic island, it seems that the only
possible element of truth in this legend is that some of the stones used in the
structure may have been brought from other islands.

172 from Mua to the Tukutonga point east of Nukualofa (p. 18). The first
173 account needs no comment; the second is highly improbable.

172 About 50 feet southeast of Nukukaualua is a circular, round topped sand
764 mound, 40 feet in base diameter and 3 feet high. It is the burial mound
(368) (*faitoka*) where the common wives of the Tui Haatakalaua were buried.

(644) A few yards northeast of this *faitoka* is the low, oval, earthen mound
172 where the house called *Falekilikili* formerly stood. This house served as a
344 place where the small, black, volcanic pebbles called *kilikili*, used in decorating
(368) grave mounds, were sorted and oiled previous to use. Ordinarily this house
[764] was tapu to every one. Only after a death in the Tui Haatakalaua family
(644) were the old women from among the chieftain's retainers permitted to enter
this house and perform the duties associated with it. Close to the north side
172 of *Falekilikili* was a shallow, funnel-shaped well where the old women
312 washed their hands after oiling the *kilikili* stones.

172 The inlet from the lagoon is now nothing more than a small mangrove
133 swamp, but anciently it is said to have contained sufficient water to permit
172 large, double-hulled sailing vessels to enter and anchor. Traces of stone
work about the edges of this swamp suggest that the channel was at least
503 partly artificial. The stones seen are dressed coral slabs, generally showing
only their tops above ground at the swamp edge.

172 In the center of the inlet, opposite the *faitoka*, there is a small island
(133) called Vakaniua. It was at this island that the sailing vessel of the Tui
(504) Haatakalaua was moored when at the home port. The island derived its
name from the boat, the name being progressively handed down from one
[552] boat to its successor. The original boat derived its name from having carried
the chieftain Fotofili to the island of Niuafoou, north of the Vavau group.

172 About 50 yards east of the house Fonuamotu stood the house called Tuku-
342 motafa, the dwelling of Lauaki, ranking *matapule* (non-chiefly official) in the
644 suite of the Tui Haatakalaua. It is now marked by an earthen *paepae* of the
(362) usual shape with its major axis about 35 feet long.

172 About half way between the house of the chieftain and that of his ranking
312 *matapule* was the chieftain's bathing place, called Malama. It is a funnel-
[368] shaped, circular basin about 20 feet in diameter, said originally to have been
one "fathom" deep but now not more than 2 feet deep and quite dry. It is
not known whether the bath was naturally supplied with water, which would
necessarily be brackish, or was filled with rain water from the roofs of the
houses, said to have been the source of supply of many of these bathing
places.

172 The cemetery of the Tui Haatakalaua lay inside the ancient shore line.
764 It now consists of four stone-walled burial platforms, collectively called
(368) Loamanu, a name derived from the largest of the burial structures. (See
p. 58.)

Collocott and Havea—Tongan Proverbs

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has succeeded in seizing it. Generally of one who has had a narrow escape.
To be exposed to danger (Baker). 539
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276. *Po fakafitaa uli*: Night, persisting through difficulties (with) steering. 539
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Literally applied to a boat making her way through storm and darkness; the steering of the vessel is rendered extremely difficult but the sailor sticks bravely to his task, and in spite of difficulty and peril, the vessel holds on her course. Applied generally to hard, arduous tasks, especially with the idea of going through with them, refusing to be daunted.

277. *Punufuu hage ha fuu vaka Vavau*: Obstructing like a great Vavau boat. 539
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It is said that a boat coming from Vavau to Haapai was unlucky enough to run on one of the reefs there blocking the opening which was the entrance to the anchorage at that spot. The expression is applied, for example, to one who enters a room and plants himself down in front of the door.

278. *Ta e lango kei mamao*: Cut the slips still at a distance, that is, when the occasion for its use is still at a distance. 539
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Lango, rendered here by slips, is a timber for raising anything on like the timbers on which a boat is pulled up out of the water or launched. The slips on which a boat is launched is probably the timber specifically indicated in this expression. The meaning is to have the preparations for launching all made beforehand so as not to waste time about it when the day comes to put the vessel into the water. Generally, to prepare well ahead for anything.

279. *Takanga a tongiaki*: A *tongiaki* in company. 539

The *tongiaki* is one of the old sailing canoes of Tonga, not so large or seaworthy as the more familiar *kalia*. A couple of these canoes might sail along in company in fair weather but if a storm sprang up neither could rely much on the other for assistance. They had neither the size nor the qualities to make them very serviceable companions in distress; in fact each would be hard enough put to it to secure her own safety. So used of fair-weather friends. 501
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280. *Takanga enau fohe*: Mates (at) their oar; perhaps, their oars are mates. 539
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The Tongan sailing canoes had two, sometimes three, steering oars. In calm weather one man apiece sufficed for these oars but in storm more would be required. This phrase indicates that the men at the oars, whether one at each or more, are well matched in skill and so the steering is done well and harmoniously. Men who are all capable workmen laboring together and carrying out their task ably and agreeably.

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285. Toki tau ae vaka e:

It is difficult to render this proverb literally. As nearly as possible it would be "The boat has but now reached land," but more in accord with the nuance of the Tongan phrase would be an appreciative "My word, the boat has made land at last. It is illustrated by a boat which has struck heavy weather and been forced to run for shelter to some port other than that for which she is making. At last, however, she is able to make the right harbor; the passengers and crew can go ashore for now they have really made the land and are not as before merely seeking a temporary shelter where they do not wish to be.

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286. Tuai mei uta: Slow from the land.

The idea is that of delay in a place where one is comfortably placed and has occupation. One may keep a boat waiting while he is seeing to his affairs on shore, but there is more sense in spending time in a place where one has resources at his disposal than in wasting it in the condition of helplessness in which men find themselves at sea.

287. Tuku mo fai la: Letting down and making sail.

A busy port where boats are constantly coming and going. One boat no sooner comes to an anchorage and lowers her sail than another leaves her moorings and hoists her sail. Refers to that which is always busy and on the move. No sooner is one job finished than another is started, like a boat which accomplishes one voyage only to shortly commence another trip.

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288. Tuu e la mo poupou: The sail standing with support.

In the Tongan sailing canoe a support was used to strengthen the mast. The sense of the phrase is to take every precaution; not only hoist your sail but see to it that it stands as firmly as possible. Applied generally with this meaning of doing everything to secure stability, success, safety.

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289. Uta lea i vaka: Land speaking in boat.

A landsman offering advice or giving orders in a boat.

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290. Vaka ki ua: (Making a) boat of neck or shoulders.

The boat is the means of carrying burdens but inland a boat is of no use, so that the neck or shoulders have to be used for this purpose.

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291. Vakavaka mua: First boat.

The picture is that of a fast-sailing boat which out-distances other boats and reaches harbor first. Applied to one who is ever ready to speak. Before anyone else can say anything he thrusts in his advice or opinion.

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CLIMATE AND SEASONS

292. Aho faka-ua: Double day.

Used of those times of the month when the moon is so bright that, even after the sun has set, there is sufficient light to perform outside tasks, go journeys, and the like.

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172 THE KING AND HIS MINISTERS

643 guns, which, it was explained, would carry with
648 precision to the farthest limits of the island, and
ended up with the imaginary ramming of an
enemy. As the king left the side the three-
pounders roared out a salute of twenty-one
guns, perhaps the part of the entertainment
which the king enjoyed best, for, whatever our
mission might portend, it had so far left him the
outward symbol of royalty.

648 That afternoon the draft treaty was sent to
him, and then the tussle began. Besides the
acknowledgment of a Protectorate, which would
prevent the country falling into other hands, two
648 definite concessions had to be made. In the
504 port of Neiafu, in Vavau, Tonga possesses the
best harbour in the Pacific—a land-locked basin
with an easily defended entrance three or four
miles long. In 1876, as the price of her treaty
with Germany, Tonga had ceded a coaling-station
in this harbour, and the Germans had dumped
some twenty tons of coal upon their concession
as a proof of occupation, and had thereafter
forgotten all about it. Though we had succeeded
to their treaty rights, it was necessary, not only
to obtain the consent of the Tongans to the
transfer, but to acquire the site for a fort to
defend the coaling-station—a matter which had
been neglected by the Germans.

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[314] their concrete church, still standing like an island among the general wreckage, as a proof of Divine warranty, a little tempered perhaps by reason of a gaping rent in the tower. The people were living in the open air, crawling into the cover of their ruined houses to shelter from [152] the rain. Poor souls! they bore their misfortunes [245] with a light heart, though the crop of orange trees, from which they get their living, were uprooted, and the cocoanuts would not recover [245] for two years. Every boat in the island was busy bringing food from the less stricken villages, and the men were saving something from the wreck by turning the fallen cocoanuts into copra.

⁶⁴⁸ Next day we set forth in the ship's boats to survey the German coaling-station in the bight [133] of the harbour. The shore is here a coral reef, [134] upheaved about fifteen feet above the sea. The [311] soil is shallow, but, like all limestone formations, very productive, and covered with plantations

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● ⁵⁰⁴ and coconut trees. On the further side was the open sea, for this part of the harbour is a mere breakwater, tapering away to a boat passage in the bight of the harbour, where the land is only two furlongs across. The Germans had done themselves handsomely, and had allowed no concern for the welfare of the

THE COALING STATION

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natives to interfere with their wishes. Starting ⁶⁴⁸ from the boat passage, they had annexed a ⁵⁰⁴ generous strip of country for a distance of half a mile, regardless of the fact that many families, who had never been consulted, were robbed of all their planting land at a stroke of the pen. These families had continued placidly to cultivate their plantations, and they were now sitting silent in the road to hear their fate. The coal, the sole evidence of their dilemma, was now a hillock of crumbling, chocolate-coloured gravel, overgrown with creepers and long unrecognisable as fuel.

We chained the boundary with a sounding- ⁶⁴⁸ line, the owners cheerfully pointing it out without any attempt to diminish the area, which proved to contain no less than thirty acres of good planting land. This being far more than we wanted, I saw an opportunity for securing a site for the fort as well. Calling them together in an open place, I announced that though England had succeeded to all the German concession, yet she would restore to them six-sevenths of this good land, and in return would only ask for a little plot of bad land in another part of the harbour. Then we chained out a rectangular piece, with a frontage of 200 yards,

15: Thomson G-3 (1886-1900) 1902
OU9 Tonga OU9

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From a photograph by

THE LAND-LOCKED HARBOUR OF VAVAU

J. Martin, Auckland

On the right is the flat-topped hill of Talau; in the distance Hunga Island and Mariner's Cave; the entrance stretches away beyond it

[Facing p. 192]

MODERN TONGA

without spelling, probably owing to deficiencies of potash. There are no minerals in Tonga, and no forest resources of value.

The islands in the volcanic chain are of little account. Only Niua Fo'ou, Niuatobutabu, and Tafahi are large or safe enough to be peopled, and they contain less than a tenth of the population. Two of them, however, have attracted some fame, Niua Fo'ou because of its Tin-Can Mail, and Falcon Island because of its periodic disappearances. This jack-in-a-box island is associated with an active volcano, whose eruptions occasionally leave a raised surface of ash and scoria which sea and rain later wash away.

The eastern chain is divided into three groups, Tonga Tapu in the south, Ha'apai in the centre, and Vavau in the north. Tonga Tapu contains about half the Kingdom's habitable area, and half its people (16,234). Ha'apai has nearly the same population as Vavau, but less than half its habitable area.² Each group has a serviceable port, Nukualofa in Tonga Tapu being the most important and also the capital.

Climatically³ the Kingdom is well favoured, since it lies in the zone of the southeast trades, and has no orographical obstructions to cause rain and high humidities. The tropical Niua have much the same rainfall and temperature as Apia and Suva, but the other groups have

² The following statistics illustrate the size, distribution, and density of the population (1939 Census)

Group	Population	Tongans	Habitable Area	Persons per sq. mile	Percentage of Tongans
			sq. miles		
Tonga Tapu	16,234	15,324	134.8	120	47
Ha'apai	7,483	7,383	24.3	308	22
Vavau	8,199	7,957	56.1	143	24
Niua	2,214	2,198	20.6	108	7
TOTAL	34,130	32,862	235.8	145	100

³ The following climatological statistics (supplied by the Director of Meteorological Services, Air Department, New Zealand) illustrate in outline Tonga's principal climatic characteristics:

	Nukualofa	Vavau
Annual mean sea-level pressure (mbs)	1014	1013
Annual mean air temperature (°F)	74	78
Annual mean daily maximum temperature (°F)	80	82
Annual mean daily minimum temperature (°F)	68	72
Average annual rainfall (ins.)	63.45	77.57
Percentage of winds between south and east	72	68
Average wind force in morning (m.p.h.)	8	6
Average wind force in afternoon (m.p.h.)	10	7
Annual average relative humidity (a.m.)	79%	77%
Annual average relative humidity (p.m.)	73%	—
Annual mean of sea temperature (°F)	77	79

NUKUALOFA.

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gorgeous foliage skirting the shore, sent out some of their swarthy inhabitants to wonder and shout at the approach of the *vaka babalagi*, or "ship of the sky," as all foreign ships are called by the Tonguese. The wild enthusiasm of the simple-minded Polynesians at the approach of a foreign ship may well be excused, when we remember that such visits are the only links of connexion between those isolated and remote regions and the great continents of our babbling world. 177

In due time we anchored safely within a short distance of the shore, and exactly in front of Nukualofa, the principal town of the island. There is no harbour, but the anchorage in the roadstead is considered exceedingly safe. The Mission brig "John Wesley" has, on two occasions, safely ridden out heavy gales amounting almost to a hurricane. In addition to the good "holding ground," the roadstead is well protected from the heavy roll of the sea by numerous reefs, extending in large and small patches, for many miles from the shore. Beyond these again there exists a great barrier reef enclosing the main portion of the group, but through which there are several wide and navigable openings to the ocean beyond. 133 504

An interesting panoramic view of nearly the entire length of Tongatabu is obtained from the deck of a vessel anchored off Nukualofa. No high hills or mountain ranges break the even line of sight. Indeed, the highest land visible is a small natural mound immediately in a line with the usual anchorage. Upon this mound there once stood a strongly fortified native kolo, or town, against which cannon were employed, for the first time, in one of the native wars, as detailed by Mr. Mari- (712)

TUGUA.

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two hundred miles distant, and the ship's course would lie through clusters of islands, the sight of which would be an ever-changing source of pleasure. 797

We touched at two places only on the way, and we shall therefore reserve for future pages any detailed description of the numerous islands we passed. 797
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Haabai is the general name given to the first extensive range to the N.N.E. of Tonga; and at one of the group, called Haafeva, we anchored before the sun had set on the day we left Nukualofa. Our object in doing so was to land the usual annual supply of stores for the Rev. William Webb, the resident Missionary at Tugua, another island distant eight miles from Haafeva. There being no anchorage whatever at Tugua, all stores, &c., could only be obtained by way of Haafeva, after being transhipped to native canoes.

Mr. Webb's sphere of labour was a very solitary one. 797
Remote from the track of all foreign vessels, and separated by a rough and dangerous part of the ocean from all his Missionary colleagues and their families, Mr. Webb, continued his faithful and blessed toil upon Tugua and its adjacent islands, for seven long years. A noble example his of self-sacrifice and of sacred devotion to his great Master's service. Truly, bright will his crown be when decked with the memorial of the scores and hundreds of converts around his lonely habitation who were the fruit of his untiring ministry.

With none of the Missionaries was our own lot so remarkably interwoven in after years as with that of this excellent man. Together we looked death in the face, and were almost miraculously saved from drowning; and at a still darker and

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797 proximity of such a reef in our course was known ; but it was thought that we were steering in a direction sufficiently wide from its supposed locality. Nevertheless, a bright look-out was kept. The night was beautifully clear, with the moon nearly at the full. Leaning my head upon the gunwale, I was scanning the open sea in the distance. Suddenly I observed a peculiar swelling in the water ; and had just time to shout, to the man at the rudder, to put the boat about, when a sound like rolling thunder saluted us, only some hundred yards in advance of our position. It proved to be the very reef we had been trying to avoid ; and, most likely, had the night been dark or tempestuous, we should there have become food for the rapacious sharks. But to a gracious Providence we were indebted, on this occasion, as on many others of a like description, for turning aside the fatal hour.

133 Of the second class of reefs, viz., those which are found in groups, or in a continuous chain, it is only necessary to observe that throughout the Pacific, as well as within the limits of the Friendly group, they follow the same law of polar inclination, which so clearly marks the physical arrangements of the islands themselves.

Of the third class or shore barrier reefs, a few points of interest may be named. According to Mr. Ellis, the author of "Polynesian Researches," they are generally "a mile, or a mile and a half, and occasionally two miles, from the shore." We presume that his remark applies, more particularly, to the Society Islands. In Tonga the shore reefs do not occur at such great distances. Hence there are none of those wide lagoons there, into which vessels may be stered, as into a harbour. The

OPENINGS IN REEFS ACCOUNTED FOR. 99

anchorages for ships are generally *outside* the shore reefs, but they are well protected by other and isolated reefs beyond. The shore reefs in the Friendly group very seldom exceed a distance of two hundred yards from the land, and these instances are rare. The average distance will be about fifty yards; but in many instances much less.

Another statement, made by Mr. Ellis, in reference to the reefs which came under his notice, will not apply to those of Tonga, and of other parts of the Pacific. He states that "in each of the islands, and opposite the large valleys, through which a stream of water falls into the ocean, there is usually a break or opening in the line of reef that surrounds the shore,—a most wise and benevolent provision for the ingress and egress of vessels, as well as a singular phenomenon in the natural history of these marine ramparts. Whether the current of fresh water constantly flowing from the rivers to the ocean, prevents the tiny architects from building their concentric walls in one continued line, or whether in the fresh water itself there is any quality inimical to the growth or increase of coral, is not easy to determine; but it is a remarkable fact, that few openings occur in the reefs which surround the South Sea Islands, excepting opposite those parts of the shore from which streams of fresh water flow into the sea."

Now, in none of the Tonga islands are there any streams of water flowing into the sea; and yet, various openings in the reefs to the ocean exist. This is also the case in other parts of the Pacific: and, indeed, there are few of the low-lying islands that can boast of even the smallest rivulet of fresh water. We must, therefore, seek for some

NATIVE WELLS AND BATHING PLACES. 109

Against this the natives seem to have a strange 312
 aversion, and they have, hitherto, resisted or been
 indifferent to all applications for that purpose. No
 one thing, of its kind, could confer a greater boon
 upon foreign visitors, or could prove a stronger
 inducement for shipping to call, than that of
 securing an abundant and ready supply of good
 water. At present, vessels visiting Vavau have to
 fill their water-casks at Falevai, a place about eight
 miles distant from the ordinary anchorage; where, in
 addition to the trouble and labour of rafting to and
 from such a distance, the water is obtained by the
 slow process of baling from a well. In the imme-
 diate neighbourhood of Talau, where vessels usually
 anchor, there are places in the rocks, which, if
 blasted, would, probably yield an abundant and
 flowing supply. It is, therefore, to be hoped that
 the enlightened policy of King George will lead
 him to overrule the prejudices of his people, and to
 provide Vavau with this essential requisite of
 a good harbour. So long as such a provision is
 neglected, the truly splendid harbour of that island, [504] ●
 of which we shall have more to say in another
 place, will remain comparatively unknown and
 unvisited.

Perhaps, as the natives themselves use but very (27)
 little water, either for drinking or any other pur- (181)
 poses, this fact may account in part for their great
 apathy. They are content with having a very few
 wells, dug in convenient localities, which afford a
 sufficient supply, for their household requirements,
 of a very hard and brackish water. It answers for
 but few purposes in European cookery. In the
 vicinity of the sea-shore, these wells, or rather [515]
 water-pits, are dug of much larger dimensions, and

CHAPTER VII.

THE harbour of Vavau, or Port Refuge—Suitability for a Naval Rendezvous—The first steam-ship across the Pacific—Rise of Christianity in Vavau—Finau Ulukalala—A sailor's letter for a Missionary—Finau persecutes the Christians—The first disciples—Their flight and conduct in Haabai—Taufa-ahau visits Vavau—Ulukalala's conversion—Burning of heathen temples and idols—Wrath of the heathen—Attempted war—A bloodless victory—Death of Ulukalala—Accession of King George—A great religious awakening—Attempt by the Romish Priests—The first code of laws—State of Vavau in 1846—Another great religious movement—Permanent results.

504 THE harbour of Vavau has been long known to the
133 English Admiralty by the name of Port Refuge. The
(103) soundings given in the accompanying chart, are what
133 were taken by Captain Bethune, of the Royal Navy,
114 when in command of the "Conway" in 1838; but
504 the sketch of the harbour then made was inaccurate
in several particulars. These errors have been corrected in the present chart; but the scale of its projection would not admit a view of the coast and islands, to the eastward. As, however, that side of the group is rendered utterly unapproachable by ships, in consequence of extensive reefs, the omission is of the less moment.

504 There are two entrances to the harbour, both of
487 which are perfectly free from dangers. The widest
133 is that to the north-west. The other lies to the south-west, between the islands of Huga and Niua-babu. That channel is only about three-quarters of a mile wide, but it is deep, and entirely free from obstructions. We entered, in the "Triton," by that from the north-west. Passing between two

THE HARBOUR OF VAVAU.

149

bluff and precipitous rocky islets, that seem to stand as sentinels over the sea-gates, we skirted the Vavau coast, having the towering cliffs of Mouga Lafa on our left, and the island of Huga on the right. Upon doubling the headland of the former, the natural formation and exquisite beauty of the harbour began to unfold before us. Behind lay Huga and Niuababu, shutting out from sight the distant and lofty peak of Late, while, at the same time, effectually protecting the harbour from the heavy swell of the sea, from the west and south-west. On the right lay the bay of Niuababu, formed by the eastern shores of that island, and the western side of Falevai. Several small islands lie in this bay; and its southern extremity is bounded by a shoal reef, extending across the strait, between the two islands just named. The reef has no opening, and is only passable by boats at the time of high water. No correct survey of the bay has been made, but it is clear of sunken rocks or reefs. Anchorage can be found in front of Falevai, and, probably, in the vicinity of the small islands. But a glance at the chart will show, that in the event of a gale from the north, or north-west, the bay would not afford a safe shelter for shipping.

The northern extremities of Niuababu, and Falevai, consist of high and perpendicular cliffs, crowned by thick woods and groves of cocoa palms. The sloping highlands of Hihifo are also covered with dense and rich vegetation, to within a few feet of the sea. The only bare spot is that which forms the table-land of Mouga Lafa.

Leaving Niuababu and Falevai behind, and keeping a course to the N.N.E., the harbour be-

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504 comes narrower, and appears to be terminated by
133 the high hill of Talau. But, after passing the
beautiful sandy shores of Utugaki, white and glis-
tering in the sunlight, and getting abreast of the
small island of Lotuma, the bay of Talau opens out
to view on the left. The usual anchorage lies be-
tween Talau and the island just named; but if the
wind be well to the southward, even a large vessel
may safely stand on, past the south side of Talau,
by a narrow but deep channel, lying between that
hill and the sandy point of Utulei. That being
passed, the ship may be brought to anchor, in front
of the chief town of the island, in a fine bay that
is, apparently, perfectly land-locked. Neiafu being
the name of the town, we shall call this sheet of
placid water Neiafu Bay. In Captain Bethune's
chart, this bay is represented as quite land-locked,
whereas there is a narrow opening, between Vavau
and Bagaimotu, at the head of the bay. This
opening is only a few fathoms wide, and is avail-
able by small boats at the time of high water.
Small as it is, the channel is extremely valuable,
seeing that it affords the most direct route of
communication from the harbour to the whole of
the islands, which lie among the numerous and
dangerous reefs to the eastward.

000 Should these islands ever become of such im-
portance, by the development of their rich natural
resources, as to induce the resort thither of a large
European population, Vavau will, unquestionably,
be a place of no mean name and value. The
energy and wealth of an enterprising community
would soon transform its lovely bays and coves,
into one of the most commodious and enchanting
harbours in existence. Its natural formation is

797 these we took with us, and the remainder we divided, according to Tonguese custom, among suitable parties in the place.

Immediately after disposing of the food, we sailed for Tauga, a small but very beautiful island, on which the families of a few fishermen reside. We reached it about noon. Our visit being expected, the people were all prepared for Divine service, which was held at once. After preaching, I met the members, and then started for Ovaka at two o'clock P.M. This latter place is the most distant of all our preaching-stations in Haafuluhao. Being anxious to reach in the evening another island, where we had arranged to sleep, I did not preach at Ovaka. However, I met all the members, and spoke to every individual on spiritual subjects. This occupied me fully until about sunset, when we again embarked, and sailed for Huga. Favoured by a strong breeze, we reached the entrance to an inlet or bay of this island, of which I had never before heard. On former visits, our boat had been

(133) run into a rough and wild-looking cave, situated towards the north-east end of this island, where there was only space sufficient to prop the boat up on the rocks, beyond the flow of the tide. We were generally carried through the sea, by one of the boatmen, from the interior of the cavern, to a rude ladder hanging over the face of the rocks, by which alone we could reach the surface of the land above. We were not sorry, therefore, to find that

● (504) the island had a more convenient landing-place in the bay at the south-east end, although it is only available at the time of high water, owing to a reef stretching across the mouth of the inlet, and which is left bare at low water. We

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CHAPTER IX.
[Niua Tobutabu]

797 to the entire satisfaction of every one, or even to our own, in every instance, in such short time, would have been almost impossible. We tried to do what was right, and we commended all our work to the blessing of the Most High. We found both chiefs and people willing to be instructed, and very anxious to act in accordance with the principles and teachings of God's word. With the Tui-Niua, Maatu, we were much pleased. He seemed [648] a truly godly and judicious man, and from our personal interviews with him, I have no reason to doubt the correctness of any of the particulars, which we have already related, respecting his escape from the murderous intentions of the Uveans.

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731 Niua Tobutabu had been visited, for two years in succession, by terrific hurricanes, which destroyed all the native produce. In the famine that ensued, a great many of the people died; and although things were mending when we arrived, there was still considerable poverty and suffering. We were exceedingly happy, therefore, in being able to land a large quantity of yams, which the Friendly Islanders had forwarded by the Mission ship, for the use of the Niua Tobutabu people; after which, we bore away, amid their prayers and benedictions, for Niua Foöu.

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504 In any state of the weather, or of the sea, it is a thing of no small difficulty to effect a landing upon this island, which we reached late in the afternoon of the day following our departure from Niua Tobutabu. There is not a single patch of sandy beach to be seen anywhere on the coast: nothing, indeed, but black and precipitous rocks. Sometimes the Mission ship has been brought to an anchor, in from seventy to ninety fathoms, in fine weather, and well

STRANGE MODE OF FISHING.

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[Niua Foa]

in shore, even with that depth of soundings. But although the weather was fine when we arrived, the very heavy swell put anchoring out of the question. The boat was therefore lowered, and being deeply laden with boxes of books, slates, &c., &c., ourselves, and the native teachers, with the boat's crew, we made for the shore.

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A strange sight here presented itself, for which we were quite unprepared. About thirty men were observed in different parts of the sea, at distances ranging from one to two hundred yards from the shore, each carrying a short bamboo cane with a fishing-line attached, and a *finaki*, or fish-basket. They had no canoes, but were swimming, or standing as one does when treading water, pursuing their avocation. Each man had a kind of life-buoy, made of several large joints of bamboo, from which he received partial support, and to which also his various fishing-lines were attached. These he drew up, from time to time, and deposited the spoil, if any, in the basket slung over his shoulders. Such is the rugged and dangerous nature of the coast, that it is only on very rare occasions that canoes can be launched for fishing purposes, and therefore the mode described above is regularly practised. The fishermen appeared to be at perfect ease in the briny element; and, as our boat passed along, they tendered us the usual salute, and then, hauling up their lines, they swam toward the shore to assist in the dangerous process of our own landing. We were directed, by natives waiting on the rocks for our arrival, to a spot where there was a narrow but flat ledge, to which our crew pulled straight ahead. When within a few yards of the shore, a number of men sprang into

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the water, each of whom seized the gunwale of the boat, guiding it stem on toward the bluff rock before us. The sailors meanwhile "feathered" their oars, and were prepared to "back water," in case the swell should carry the boat forward with too great velocity, in which event it would either have been instantly smashed upon the rocks, or upset by the rebound of the sea. Thus, poised upon the top of the swell, we each watched when the boat rose level with the ledge of rock, and at a favourable moment sprang upon the shore. The operation involved the certainty of a ducking, if not something worse, in the event of a false or short jump, and of broken shins or knees, in case of landing too heavily. With the exception of some of our goods getting wet, no misfortune attended our landing. We found that preparations had been made for carrying us to the chief town, about four miles distant, and knowing how much labour of another kind was before us, we reluctantly consented to the proposal, only descending from the rude palanquin or hammock to walk, where the road was excessively steep, or was too narrow to admit of safe progress, excepting in single file. Certain parts of the road we took skirted the top of tremendous precipices descending to the lake lying in the centre of the island. At these points it required some nerve to look without giddiness on the grand scene below us, and to pass on in safety. We need not, however, dwell upon the natural features of the island, these having been already described in former pages.*

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A round of ministerial duties, such as we had already discharged at Niua Tobutabu, gave us full

* See pages 52-58.

PEACE AND PROGRESS.

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[Eua]

Of the two former, nothing need be said here, as they were small and unimportant; but a passing notice of Eua may complete our view of the Tonga group. 797

Several visits to this island, at different periods, enabled us to form a good opinion of its physical character and capabilities. Having been styled the "granary of Tonga," we expected to see it in a very high state of cultivation, but we found nothing peculiar in it in this respect. At present it has but a very small number of people upon it; and these, being cut off from foreign intercourse through the want of a harbour, have no inducement to cultivate the soil beyond the necessities arising for their own support. The beauties of the island are great, and its richness of soil for agricultural purposes unquestionable, but these lie undeveloped. In former days, when the population of the country was greater, large supplies of produce may have been carried to the adjoining main island of Tongatabu, especially in seasons of famine caused by drought or hurricanes. From the effects of the one the snug and lovely valleys and ravines of Eua would be sheltered; while its flowing rivulets and streams would counteract the evil consequences of the other, at times when Tongatabu itself might be lying in temporary desolation. Hence the dependence of the Tongans upon Eua, at such times, for food; and hence, probably, the reason why it was styled, magniloquently, their "granary." 241

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(133)

One of the pleasantest Missionary trips I ever had was to this island, in company with the Rev. George Daniel, in the year 1851. We each took our own boat and boat's crew. The wind being 797

797 would be better to leave in the morning for Tofua, and do the work at Tugua on our return from thence. Tofua is the most distant island of the group, lying about fifty miles due west from Lifuka.

[133] 19th.—Before the sun had risen, we were skirting along the coral reefs of Tugua. The breeze, however, was light, and we did not reach Tofua until one P.M. The island is about two thousand feet high, and the whole coast rocky and precipitous. On that side where we landed, there are but

• [504] two small patches of sandy beach, with narrow openings through the fringing shore reef. These are the only spots where, even in the finest weather, a landing can be effected. The one is called Haamatua, the other Manaka. We steered for the latter. It is usual, when the natives of the island see any canoe or boat approaching, to send a number of men to assist in getting the visitors, and their canoe or boat, safely on shore. Our approach, however, having been undiscovered, we were left to shift for ourselves. Peter Vi being the only one conversant with the narrow and crooked channel, acted as pilot, while I steered. After entering the passage, our boat was well nigh lost. One of the long rollers threw it broadside upon a sunken patch of reef, in the middle of the channel, of which we were not aware; and, had not the crew jumped into the surf, thus easing the boat of their weight, and also bearing it up, as each succeeding wave came, until it floated again in deep water, we should certainly have been both swamped and smashed. By the time we had got over our difficulties, several of the islanders came, offering many apologies for their late appearance. I was puzzled

A STORM.

377

to know where the boat could be secured. The enormous cliffs rose abruptly from the shore, leaving only a strip of black sand, beyond high-water mark, not many inches wider than the boat itself. On my expressing a fear that even a little extra sea would probably float her away into the roaring surf, not fifty yards distant, they only laughed, and said, "It is possible; should there be a hurricane." Their unconcern somewhat reassured me; so placing one side of the boat against the cliff, and propping up the other with a few sticks, we set off for the village.

After dinner, and a little rest, I preached at sunset, and arranged for the examination of the schools, and for religious conversation with the church members, on the next day.

20th.—Breakfasted at daybreak, and afterwards met the classes. There seems to have been much ill-feeling and party-spirit here; but I hope things will now assume a happier aspect. The wind has been freshening ever since we landed, and now it blows hard; the sea is breaking right across the reef channel, so that, as a matter of necessity, I must remain here for the Sabbath. Met and examined the schools in the afternoon: when, considering the remoteness of the island from all the others in Haabai, and particularly from the Mission Station at Lifuka, I found the school in a very fair state of efficiency. The reading and writing performances of both young and old were very creditable.

Sunday, 21st.—Prayer-meeting at sunrise. Preached twice during the day. Another prayer-meeting in the evening. The whole of these services were well attended and greatly blessed. The

797

[133]

[504]

[871]

BOAT IN DANGER.

379

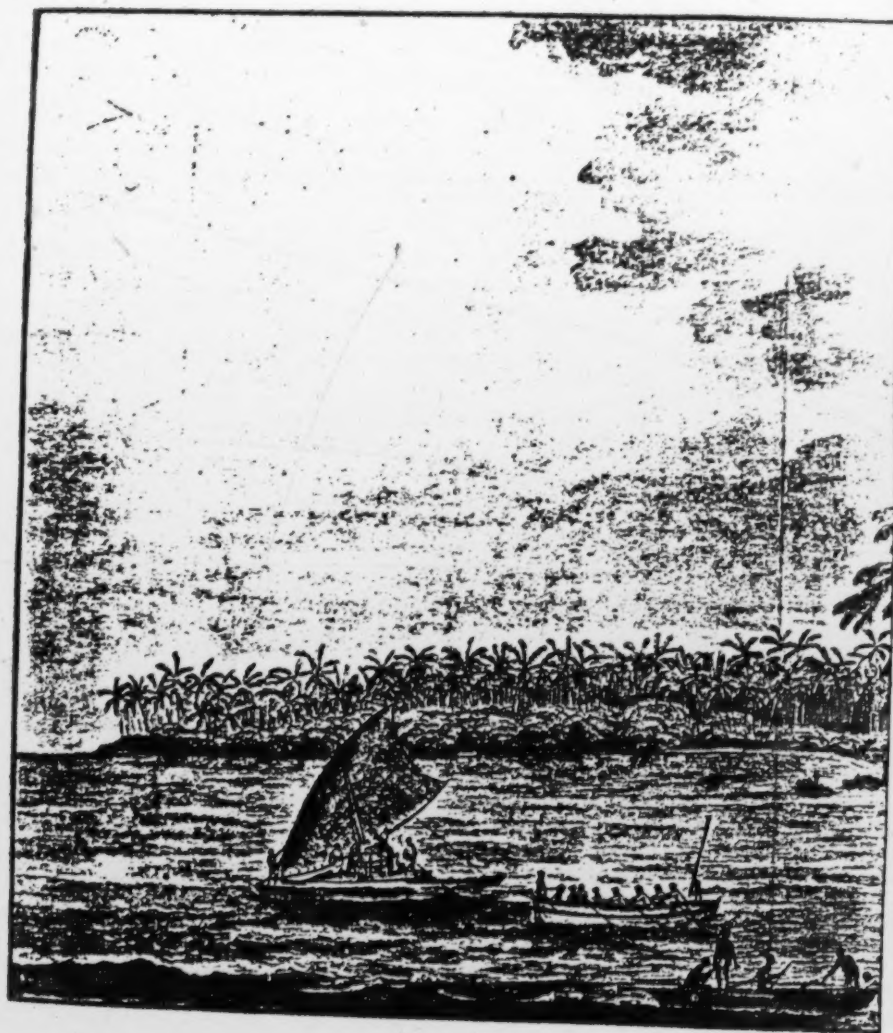
His schools do him great credit. At noon we sailed for Tefoa, a small island, inhabited by some fishermen. We found it almost deserted. Held no service, but went on to Matuku, which we reached after tacking three or four times. Here I did not preach, but met and examined the school. From Matuku, we sailed to Haafeva, arriving there shortly after the sun had set. Preached to a large congregation by lamplight. 797

25th.—This morning examined two of the schools. The children's school, under the charge of David Jiale, reflects great credit upon his industry and ability. The singing was excellent. Jiale is one of the best men sent out from the Training Institution at Tonga; and this case shows the value of a regular training for our schoolmasters. [871]

From Haafeva we sailed for Fotuhaa, an island very seldom visited by a Missionary, owing to its isolated position and inaccessibility. Arrived there about two P.M. There is only one small and dangerous opening on the shore of this rocky and precipitous island. There is not even a fringing reef; but the full force of the open ocean sweeps against the cliffs. The usual landing place being impracticable, owing to the prevailing wind, we made for the lee side, in search of some favourable spot. At one place we discovered a number of men descending the rocks, who signalled us to land there. We therefore stood in as near as possible, took in sail, and let go the anchor. Upon this one of the men on shore sprang from a cliff twenty feet high, and swam off to the boat. By his directions, we altered our position a little, dropped the anchor again, abreast a ledge of rock, where a number of men were by this time congregated to give us help. 797 504

797 We then allowed the boat to go slowly astern, and,
504 when close in shore, the natives swarmed about
it like bees, to fend it off the rocks, whilst we
made our exit to the shore the best way we could,
leaving the boat in charge of three of the islanders,
who undertook to manage it in our absence. Such
was the difficulty of landing, and the danger of get-
ting the boat injured, that I had no intention to sleep
797 on shore. The people, however, were so gratified by
our coming, and they so urgently requested us to
stay the night, while assuring us that the boat
would be quite safe in the hands of the three skil-
ful men who had taken charge of it, we could not
but consent. The preaching service was one to be
remembered. Not a few were bathed in tears.
Several wild-looking young men, heathens in ap-
pearance, if not really so in life, were awakened,
and, before morning, they had shorn off their
immense locks of tangled and plaited hair, as an
evidence of their sincerity. They looked like new
creatures, even with that small outward change of
costume, and I believe their hearts were still more
affected and spiritually changed.

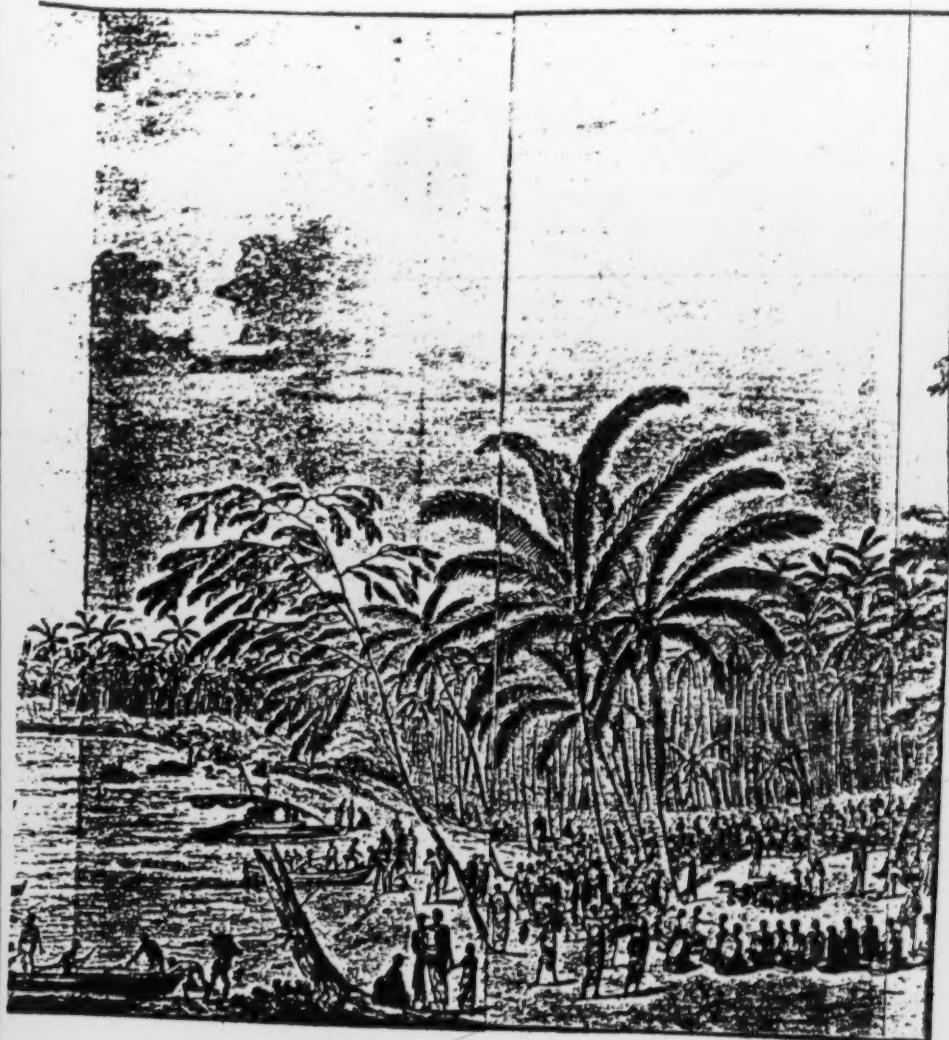
26th.—Early this morning I met the church
members, after which I examined the school, and
was well satisfied with its condition. Considering
the remote and solitary position of the island, the
attainments of the scholars were very fair. When
594 our work was completed, this kind people brought
us presents of several baked pigs, yams, bananas,
fish, fowls, and cocoa-nuts. We then went in search
of the boat to the spot where we landed the pre-
vious night; but could see nothing of her. As it
had been a squally night, we thought it not un-
likely that she had been drifted out to sea. How-



[Facing p. 96-A]

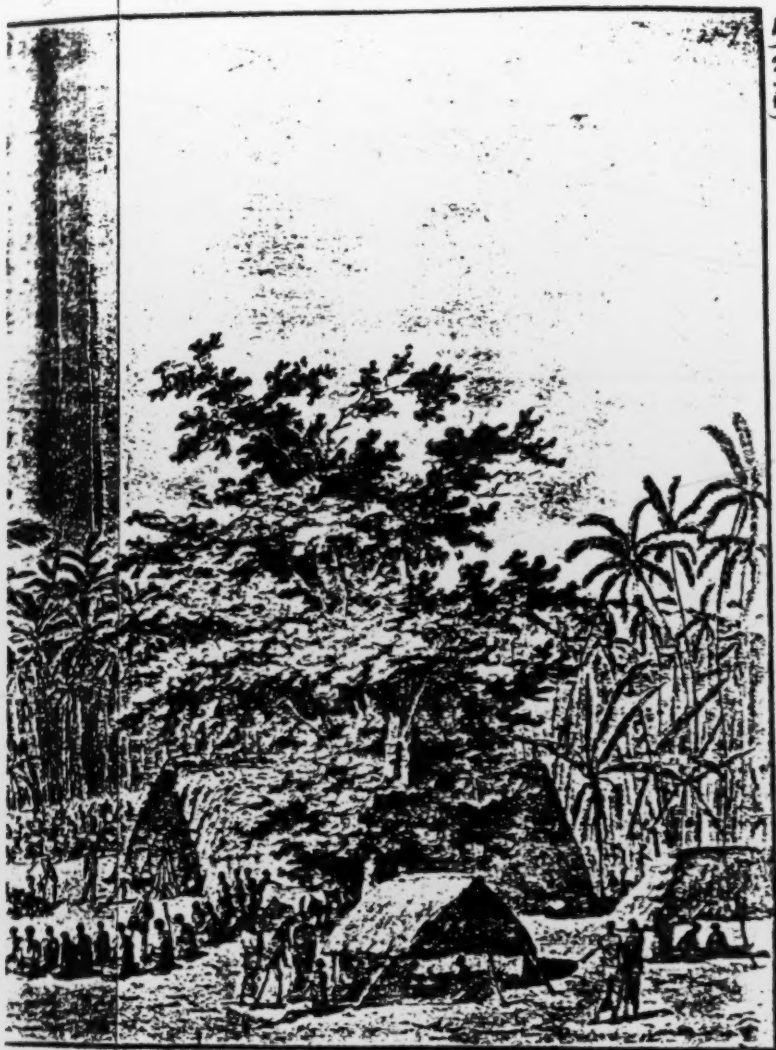
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501
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PL. 15. Annamocka (Nomuka) harbour
Drawing by Webber.—B.M., Add. MS 15513.7

[facing p. 96-B]



501
34
504

[facing p. 96-C]

164]

[1777]
Resolution AND Discovery

[July

569 that it almost reach[ed] his shoulder. The red feathers so often mentioned in this Narrative all come from Fidgee, as also some of their
 449 finest Striped and chequered Cloth and a few other articles. The demand for feathers is so great that it frequently occasions quarrels
 [72] for if the people of Fidgee refuse to Trade, the others rather than go without will fight for them, so at least I have been told. Now I am
 266 again with Canibals, let me ask those men who Maintain that the want of food first brings men to this Custom, what it is that induceth them to keep it up in the midst of plenty? As these people have no
 804 method of Measuring the distance from island to island but by the
 805 time required to sail it in one of their canoes it was necessary to know or at least to form some judgement how far they can sail in a moderate gale in any given time. With this View I went on board one of them when under sail, and by several tryals with the log found she went Seven knots or mile in an hour, close hauled in a gentle
 502 gale. From this I judge they will sail on a medium with such breezes as generally blow in their sea about seven or eight miles in an hour; but the length of each day is not to be reckoned at twenty four hours, for when they speak of one days sail, they mean no more than from the evening to the Morning of the same day,¹ that is ten or twelve hours at most. And two days sail signifies, from the Morning of the first day to the evening of the second and so for any other number of
 502 days. In these Navigations the Sun is their guide by day and the Stars by night, when these are obscured they have recourse to the points from whence the Wind and waves of the Sea come upon the Vessel. If during the obscuration both the wind and the waves shift (which seldom happens at any other time within the limets of the trade wind) they are then bewildered, frequently miss their intended port and are never heard of more.

504 Of all the harbours and Anchoring places I have met with about
 193 these islands that of Tongatabu is by far the best, not only from its great security but for capacity and the goodness of its bottom. The risk we ran in entering it from the North ought to be a sufficient caution never to attempt that passage again with a Ship of burden, sence the other is so much more easy and safe. To sail into it by this eastern Channel, steer in for the NE point of the island and keep a long the North Shore with the sm^l isles on your Starb^d till you are the length of the east point of the entrance into the Lagoon, then edge over for the reef of the isles and follow its direction and it will Con-

¹ Cook has evidently slipped here, and intended 'from the morning to the evening': the correction was thus made in *Voyage*, I, p. 376. The Log, Adm 55/111, has a marginal pencil note in an eighteenth-century hand, 'should be vice versa'.

1777]

ISLANDS COMPARED

[165

duct you through between Maccaha and Monooaffee¹ or the 4th and 5th isles which you will preceive to lay off the West point of the Lagoon, or you may go between the 3rd and 4th that is between Pangymaudoo and Manooaffee,² but this channel is much Narrower than the other. There runs a very strong tide in both, the flood as I have before observed, comes in from the nw and the Ebb, retur[n]s the same way, but I shall speak of the Tides in a nother place. As soon as you are through either of these Channels haul in for the shore of Tongatabu and Anchor up in the bieght between it and Pangymaudoo, before a Creek leading into the lagoon, into which boats can go at half flood.³ 133 504

Altho *Tongatabu* has the best harbour *Anamocka* furnishes the best Water, though it cannot be called good, however by diging holes near the side of the Pond one gets what may be called tolerable. This island too is the best situated for drawing refreshments from all the other as being nearly in the centre. Besides the road in which we anchored and the harbour within the sw point, there is a creek in the reef before the Eastern Sandy Cove on the North side of the island, in which two or th[r]ee Ships might lay very secure by mooring head and Stern with their anchors or Moorings fast to the rocks. 132 133

Happi is a group of islands extending swbs and NEBN about 19 Miles and are connected to each other by a reef of coral rock. The North end lies in the Latitude of 19°39' s and 33' of Longitude to the East of Anamock[a], between them are a great many small islands sand banks and breakers, so that the safest way to come at Happi is either by the rout I took or round by the North, according to the situation of the Ship bound thither. *Lefooga* off which we Anchored is the most fertile isle of them all and of course the best inhabited. There is anchorage along the nw side of this island, but it will be necessary to examine the ground well before you moor, for altho the lead may bring up fine sand there are nevertheless some sharp coral rocks that would soon destroy the Cables. 101 131 133

Those who want a more particular description of these islands must have recourse to the annexed Chart, in which every thing is delineated with as much accuracy as circumstances would admit. Recourse must also be had to the same Chart for the better finding out the several stations of the Ships and their rout from the one to 128

¹ Makaha'a and Monu afe.

² It should be Pangaimotu and Makaha'a. Cook's names, repeated from the passage on p. 155 above, suggest that he had got Makaha'a and Monu afe mixed in his mind, though his chart was correct.

³ Here he means the passage between Holeva (his 'Observatory Point') and Nukunuku.

A [See category 102, p. 104--Analyst]

262 pineapple and papaya are eaten in season, and kava is widely grown.
[241] Pigs and chickens thrive and, along with fish and tinned corned beef,
[231] form the main protein in the Tongan diet.

131 Geographically and administratively the Tongan islands can be divided into three main groups (see map, Figure 2.2). Tongatapu and

[193] 'Eua in the south have by far the largest land area. The central Ha'apai group consists of small coral limestone islands. Lifuka, largest of the Ha'apai group, is $4 \frac{1}{4}$ miles long and $1 \frac{1}{2}$ miles at its broadest place. The Vava'u group lies 60 miles northeast of

● [504] Ha'apai and consists of one large and several small islands. Neiafu harbor, Vava'u, is one of the best land-locked harbors in the South Pacific. In addition to these three main groups there are outlying islands to the north, including Niuafo'ou, Niuatoputapu, Tafahi, Toku, and Fomalei.

192 The temperature varies from the low 50° s to 90° , the humidity is usually very high, the mean being almost 80° . Annual rainfall is about 65 inches per year. There is usually a definite wet season from December to April and often a draught between October and December.

[312] Until recently all fresh water was rainwater. Tonga is subject to
[731] hurricanes and not infrequently thousands of coconut and banana trees, the basis of their cash economy, are ruined.

PEOPLE AND LANGUAGE

161 This is the geographical setting in which nearly 70,000 people play their daily social roles. The figures of the last Tongan census,

132 on February 16, 1970 to a nighttime low of 55.8° F, on July 17, 1970 (Tu'ipelehake 1970: 2).

Government and Political Organization

642 In June 1970, the Kingdom of Tonga emerged from status as a British Protectorate to a fully independent nation. Today the national government of Tonga takes the form of a constitutional monarchy. Tonga has 646 parliamentary institutions which appear to be based on a Western govern- 177 ment model, but examination of content rather than form reveals Tongan 178 principles at work.

The Legislative Assembly is unicameral and consists of Privy Councillors, Cabinet Ministers, Representatives of the Nobles and Representatives of the People. Eleven councillors or ministers—all but two of whom are nobles, together with a further seven Noble's representatives, represent the traditional foci of leadership. They are theoretically counter-balanced by seven representatives of the people, many of whom in fact have been elected because of qualities important in traditional Tonga. The system bears superficial resemblance to its English model: it is western in its legal form, Tongan in its benevolent but autocratic practice (Walsh 1967: 120-121).

632
● (504) Nuku'alofa, the major port, is the seat of government and the center of economic, social, and religious life of the Kingdom. Nuku'alofa (368) is also the location of most secondary schools and has the largest and (162) best hospital in the islands. With a population of 15,685, 21 percent of the Tongan population resides in Nuku'alofa. Between 1956 and 1966 (161) the town showed an increase in population of 70 percent (Fiefia 1968: 11). (179) Nuku'alofa is beginning to experience the problems of rapid population growth and the attendant phenomena of unemployment, crime, and the inabilities to handle new demands on government services. Walsh (1969:

Yuncker—Plants of Tonga

5

Laportea harveyi, *Rhus taitensis*, *Alphitonia zizyphoides*, *Dysoxylum* spp., 137
and other trees may reach considerable size. Tongatapu and 'Eua are the only [10]
permanently inhabited islands of the Tongatapu group.

The central, or Ha'apai, group is about 90 miles from Tongatapu. It in- 131
cludes the main islands of Lifuka, the former capital and site of the Chief's 101
Palace; Nomuka; Kao; Tofua; and a large number of smaller islands, many
of which now support no permanent inhabitants.

Vava'u, the largest and principal island of the Vava'u group, has an area 133
of approximately 35 square miles and reaches an altitude of about 150 meters
along the precipitous northern coast. Its surface is uneven and the southern, [504]
very irregularly and deeply indented coastline provides a beautiful and com- [361]
pletely land-locked harbor, where the principal town of Neiafu is situated. At
the northwestern part of the island is a lake of brackish water and nearby is a
rather large swamp of marshy area unique in the islands. Another, a large
central lake connected at one point with the sea during high water, is found
on the island of Nomuka in the Ha'apai group. Large crater lakes also occur
on Tofua and on Niuafo'ou. Ocean-going steamers are able to dock at Neiafu 504
in Vava'u and at Nuku'alofa on Tongatapu. Cutters and interisland boats can
reach a jetty at the village of Pangai on Lifuka Island in the Ha'apai group,
and it is possible for very small boats to make a landing at a makeshift dock
on 'Eua. And it is usually possible, in moderate seas, to get ashore from
canoes or other small boats on the other low coral islands. It is much more 504
difficult, however, to land on the volcanic islands of Tofua, Kao, Late, Niua- 133
fo'ou, or Tafahi where most of the coast is steep and abrupt and where pro-
tecting reefs are lacking or do not break the often strong wave action. These
islands can be reached only by canoe or small boat and under most favorable
weather conditions, or by swimming from larger boats which must stand well
off shore for safety.

The population of Tonga is nearly 50,000. It is heavily concentrated on 161
the islands of 'Eua, Tongatapu, Nomuka, Lifuka, and Vava'u and some of the 162
smaller adjacent islands. The volcanic islands of 'Ata, Tofua, Kao, Late, and
Niuafo'ou have few or no permanent inhabitants at the present time. The [731]
former population of about 1,300 on Niuafo'ou was evacuated after the dis- [166]
astrous volcanic eruption in 1946, and at present makes up a large part of the
population on 'Eua. (See figure 2.)

The more heavily populated islands show a high percentage of land utiliza- 137
tion, the indigenous plant species surviving only in occasional uncultivable [31]
areas, usually near the sea. Everywhere grows a number of species of greater
or lesser usefulness presumably brought to the islands by the aborigines as
they arrived in Tonga from other islands. These species predominantly show
Asiatic, African, or Malaysian origin. A possible exception is the sweet potato,
and there is considerable question as to how it reached Polynesia. In this group
one may include that most useful of all plants for island peoples, the coconut.

Yuncker—Plants of Tonga

7

Presumably, the unintentional introduction of certain weedy species occurred at the same time. A good many cultivated species, together with many weeds, owe their presence to the visits of European ships, starting early in the seventeenth century and continuing with increasing frequency to the present time. Some of these alien species find optimum conditions for growth and multiplication, and have undoubtedly played a part in limiting or even exterminating some endemics or indigenous species through aggressiveness. A high percentage of the usual strand and weed species includes those frequently found on other Pacific islands and elsewhere in tropical countries. 137

There is little fresh water available other than that impounded in tanks from rainfall. Aside from occasional small localized areas, the low coral islands present a monotonous repetition of plantation weeds and fallow-resting plantations of second-growth "bush." The dominant crop is coconuts, and large areas have been cleared for the extensive plantations found on most of the islands. At present, the high market value of copra makes it the most important source of income for the islanders. The second most important export crop is bananas, of which 50,000 or more cases are shipped annually to New Zealand. The more rugged topography of 'Eua, and to a somewhat lesser extent of Vava'u, prevents the cultivation of some parts of the islands. As a consequence, there are more opportunities on these islands for the survival of native species. Some of the islands, especially 'Eua and Kao, still have significant timbered areas with some of the tree species reaching a diameter of more than a meter and offering a source of timber. Lumbering operations are being developed by the government on 'Eua which, together with the fact that more and more of the forested land is being cleared for new plantations, threaten to reduce or eliminate many of the native species. Too, this has caused a soil erosion problem on some of the slopes. Lumbering operations on the volcanic islands of Late, Tofua, Kao, and Tafahi, because of the present lack of harbor facilities, are all but impossible. It seems improbable, therefore, that much timber will be cut on those islands in the immediate future, and it is on those islands that many of the native species will have the best chance of survival. However, with any marked increase in population, it will eventually become necessary to colonize and develop such islands. 312 245 434 439 311 313 311 509

The climate of Tonga is pleasant during most of the year. The annual temperature ranges from a low of around 75° F. in July and August to a high of 85° to 90° F. from January to March. Slightly higher or lower temperatures are not infrequent. The humidity is comparatively high, ranging from about 88° in the warmer months to a low of around 72° in the winter period. The average mean rainfall is about 80 to 90 inches, with the wettest season during the first six months of the year. 132

The collections upon which this report is based were made on the islands of Tongatapu, 'Eua, Nomuka, Lifuka, Kao, Vava'u and Niuafo'ou between February and June 1953. Projected visits to 'Ata, Tofua, and Late were aban- 101 126

GEOGRAPHY OF TONGA.

THE TONGAN ISLANDS: THEIR POSITION AND FORMATION.

131 There are over 150 islands in the Tongan group, but most of them
[161] are very small and only 36 are inhabited. The total area is 269 square miles, and the population is 28,839. Thus Tonga is one of the smallest groups in the Pacific Ocean, very much smaller than Fiji or Samoa, for example.

631 The islands are divided into three main groups; these are, TOGA-
TABU in the south, HA'ABAI in the centre, and VAVA'U in the north.
131 Ha'abai is an extensive archipelago of very small islands, but the Toga-
tabu and Vava'u groups consist of one larger island as well as many small adjacent islands in each case. This division is not merely geographical but also commercial and political. The three ports of call are Nuku'alofa, the capital, in Togatabu; Lifuka, the main island of Ha'abai; and Neiafu, the chief village of Vava'u. The Government is represented by separate
[504] Governors in Ha'abai and Vava'u.
[634]

131 Although the total area of Tonga is so small, the islands are scattered over a comparatively wide expanse of the South Pacific Ocean, between 15° and 22° South Latitude and 173° and 175° West Longitude. The position of Togatabu is 21° South Latitude and 175° West Longitude. Vava'u is in approximately the same latitude as Townsville, and Togatabu as Mackay, North Queensland.

805 Tonga actually is in the Western Hemisphere, but in spite of this it
observes eastern time, that is, the same time as places in the Eastern Hemisphere (Europe, Asia, etc., and as far as Fiji), and not the time of the Western Hemisphere (America, etc.). For instance, when it is 2.20 p.m. Thursday at Nuku'alofa, it is 2 p.m. at Suva, 1.30 p.m. at Auckland, 12 noon at Sydney and 2 a.m. at London—all these times being on Thursday—but it is Wednesday, 6 p.m. at San Francisco (U.S.A.) and 2.30 p.m. at Apia. Although it is 2.30 p.m. in Samoa when it is 2.20 p.m. in Tonga, nevertheless, the day is rightly called Wednesday in Samoa, while in Tonga it is called Thursday, owing to the fact that, as Tonga's commercial dealings are chiefly with Australia, New Zealand and Fiji, it observes the same day as those countries.

131 Nuku'alofa is 2,000 miles direct from Sydney; by the steamer route, the distance is 1,740 miles from Sydney to Suva, and 430 miles from Suva to Nuku'alofa. The distance from Nuku'alofa to Auckland is 1,100 miles, about 50 miles less than from Suva to Auckland.

133 The Tongan Islands are called oceanic islands, as they are not close to a continent nor surrounded by shallow water, thus differing from continental islands like Great Britain. The ocean west of Tonga is less than two miles deep, but east of 'Eua it is over five miles deep; indeed, there is a very deep trough or ocean-valley, called the Tonga Deep, which passes east of Tonga and continues to the east of New Zealand, reaching a depth of nearly six miles off the Kermadec Islands between Tonga and New Zealand. The Tonga Deep is one of the deepest parts of the

Coral Islands.—Scenic and Historic Places.

81

Ha'ateiho is the place where three London Missionary Society missionaries were killed in 1799. At Bea may be seen the spot where Captain Croker was killed and three naval guns were captured in 1840. 648
[797]

There is a good example of an old fort in fair preservation at Hule, near Nukunuku. The most remarkable of the numerous trenches of the island is known as the Keli'-a-Belchake, which extends from Vaotu'u to Nukunuku, Te'ekiu, Masilamea, and back to the southern coast at Fahefa; tradition states that this was actually dug in a single night during a war between the men of Hahake and those of Hihifo led by Vaha'i, at some undetermined time probably in the early 19th century. The name of a hamlet, 'Umutagata, also in the western district, recalls a rare instance of human cremation and cannibalism. 712
[173]
103
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764

At Kolovai there is the enclosure where the former Tu'i Kanokubolu were invested with office; a piece of the koka tree under which these kings sat has been placed in the modern coronation chair at Nuku'alofa. The tombs of these kings are also at Kolovai. This village is well-known to tourists as a sanctuary for great numbers of flying-foxes. 643
[764]
136

Houma, on the south-west coast, is noted for the blow-holes which extend along the cliffs for a considerable distance. 133

In the extreme north-west of the island, at Ha'atafu, a monument stands to mark the landing-place of the first Wesleyan missionaries (1826). Tasman in 1643 and Cook in 1773 also landed nearby. 648
[211]

Navigation lights now stand at Ha'atafu, Nuku'alofa and Malinoa, an island north of Nuku'alofa. The quarantine station is situated at Makaha'a, another island off Nuku'alofa. 502
504

Ancient stone-quarries are to be seen at Motutabu and Bagaimotu, small islands not far from Nuku'alofa. It seems more than probable that the stones used in the great tombs (lagi) at Mu'a and elsewhere were cut at these places, and certainly not at Uvea and other distant islands to which old native traditions refer. 316
174

HA'ABAI. It is considered that this name is derived from Savai'i, the island in Samoa from which the ancient Tongans probably came. Ha'abai is a scattered archipelago of small islands, the total area of which is less than that of 'Eua, if the uninhabited volcanic islands of Tofua and Kao are excluded. Yet these islets support a population of 6,410, most of whom have small tax-allotments or none at all, and despite the difficulties of getting a livelihood—difficulties which hurricanes and droughts have increased in recent years—the number of people who have gone to take up land in Togatabu and Vava'u is not considerable. The people of Ha'abai have always been renowned as skilful navigators and fishermen. 103
133
131
162
311
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226

The Governor of Ha'abai resides at Bagai, Lifuka, which was also the boyhood home and always the favourite residence of Tubou I. Cook was entertained at a great festival and a plot was made against his life on this island in 1777. Mariner's vessel, the "Port-au-Prince," was also attacked here, and the cemetery of the murdered sailors is at Koulo, Lifuka. 634
175
648

Uoleva, now uninhabited, has a remarkable number of pigeon-mounds used by chiefs in ancient times, also an old sunken road of unknown use extending through the island. 172

[1828-1830]

43

Aleamotu'a was baptized on 10 January 1830 in the presence of a congregation of 600. He took the name of Josiah, and the missionaries generally referred to him afterwards as Josiah Tupou or King Josiah. He had supported, first the Tahitian teachers and then the Wesleyan missionaries, wavering only temporarily and under strong pressure. His three sons and two daughters were baptized at the same service. On the afternoon of that day, Turner wrote, [797] [643] [795] [794]

"A man who had been a magician or a kind of god and of so high a rank that the king used to pray to him was baptized; so in the same day we have baptized both the king and his god." (28)

After Aleamotu'a was baptized he was married to his chosen wife, Mary, who had become a class-leader and had taken charge of the Sunday School in Nuku'alofa. (29)

Nuku'alofa, with its daily teaching and well-attended regular worship, had become an orderly Christian community. Every Sunday was filled with services and teaching: 5 a.m., prayer meeting; 8 a.m., children's catechizing; 9 a.m., worship; 3 p.m., worship; evening, English service (for mission families and any visiting sailors). During the week the missionaries supervised the day schools, conducted classes for catechumens and others for full members, and held a mid-week service (Wednesday) and prayer-meeting (Friday). They were also occupied with translation work, dispensing medicine, making pastoral visits to the sick and to outlying villages. On 31 March 1830 Cross sent to the Committee in London specimens of the handwriting and composition of Mary, wife of Aleamotu'a, and others. These may be the first sentences in Tongan still in existence; they are preserved in the Mitchell Library, Sydney. (30) [797] [796] [212]

The change in the people's attitude was receiving favourable comments from visiting sea-captains. Captain Hardy, *Snapper*, who used to avoid Tongan anchorages because of the people's reputation for deceit, robbery and violence, reported on the difference when he came on 22 September 1828. Commodore Lawes, H.M.S. *Satellite*, in May 1829, expressed astonishment at the progress the people at Nuku'alofa had made in reading after only a short time. The wrecked whaler, *L'Aigle*, received unexpected hospitality from Aleamotu'a and his people in March 1830. On the other hand, the sailors of some ships cursed the missionaries because they had forbidden women at Nuku'alofa to go on board the visiting vessels.

The chapel built for the Tahitian teachers in 1826 had proved far too small. On 5 May 1830 Turner reported the beginning of the construction of a new chapel "on the hill where the old fortress stood in Mariner's time", the hill to become famous in Tongan Church history as Zion. On 3 September it was opened, with about 1,000 attempting to crowd into the building and nearly as many others outside. Turner described the efforts of some to appear in European clothing, the women with "gowns and bonnets. The bonnets were entirely of their own manufacture, under the direction of Mary, the excellent wife of Tupou". Though Turner wrote this with some satisfaction, he added that the appearance of many could only "excite a smile". Another quaint reference was to Thomas Wright, Lawry's old servant who had returned with John Thomas, and who now conducted the singing in Zion "although he does not understand music"! (31) [368] [794] [291] [179]

Nuku'alofa had formerly been a fortress. Its new importance arose not only because of its convenience as a port but as the centre of the new religion in Tongatapu. It is also noteworthy that Turner and Cross had commenced preaching [361] [504]

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MR. J. J. LISTER ON THE GEOLOGY

[Eua Island]

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The most striking feature of the formation is the existence of well marked terraces on the lower slopes.

The terrace *a*, as above stated, extends along the whole length of the western side of the island, at an elevation of about 250 to 365 feet above sea-level.

The outer, western border of the terrace is for a great part of its length higher than the interior. Beginning at the northern end, we find the terrace forming a narrow band, so narrow that it makes only a slight interruption in the sloping side of the island. To the south it gradually widens out, being at first level from side to side, but soon the interior becomes depressed below the margin. The depression is greatest at one-third of the length of the island from north to south. Here the margin is about 65 feet higher than the interior. As we advance southward the depression of the interior becomes less marked, until at the junction of the middle and southern thirds of the length of the island the terrace is again level, and remains so to the southern end. Passing across the terrace from east to west, in the region of the depression we descend a very gradual slope to near the outer border. From the lowest part the ground rises to the margin of the terrace, in most places by a gradual ascent, but at one point the rise is abrupt. Opposite the town of Ohunua there is a gap in the high margin, the bottom of which is at the same level as the depressed inner part of the terrace. Through the gap there runs a steep-sided ravine, cut in the limestone rock; it is formed by the junction of two of the overflow channels of the streams of the upper part of the island, and there is water in it only after heavy rains. Having passed the gap the ravine pursues a straight course down the sloping side of the island to the sea, and at its mouth there is a break in the reef and an anchorage for small vessels.

On the margin of the terrace to the south of the gap the limestone rock forms projecting masses, and in some of these definite *Astraea*-like coral structure is to be seen. Other specimens present a homogeneous structure to the naked eye. Dr. Murray has examined sections of these*, and finds that they are "chiefly made up of calcareous alga, together with fragments of coral, molluscs, echinoderms, and foraminifera"†. He concludes from the character of the organisms that the deposit was "formed in quite shallow water."

With regard to the peculiar conformation of the terrace, it appears that the depression in the interior must either have existed at the time that the terrace was elevated above sea-level, or have been excavated since by the denuding action of rain or streams.

Slide No. 1271.

Among the foraminifera the following kinds were recognised:—

Miliolina, sp.
Orbitolites duplex (?).
Textularia trochans (d'Orb.).
Globigerina bulloides and *Gl. rubra* (?).

Planorbulina larvata (P. & J.).
Carpenteria monticularis (Carter).
Polytrema miniacum (Linn.).
Calcarina hispida (Brady).

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[Hapai and Kotu Groups]

133

eastern side there is a rather rapid descent, terminating in a little cliff some 10 feet high, whose base is much excavated by the waves. The rock of which the cliff is made consists of masses of coral of various sizes, cemented together into a conglomerate. Its structure, in fact, resembles that of a shore-platform. Extending from the foot of the cliff some 300 yards to seaward is the present shore-platform, on which, at low tide, there is about a foot of water near the shore, while the outer part lies bare. The cliff of raised rock extends along the whole of the eastern shore of the island.

Some distance from the concave side of the long Hapai reef there are numerous shoals and small islands. The island of Fotuha, north of the Kotu Group, displays the abrupt undermined cliffs of a raised coral-island, and stands at an elevation of about 100 feet above the sea.

The few soundings that are given in the chart show depths of 10 to 24 fathoms along the greater part of the western boundary of the reef, though 30 fathoms is marked opposite the northern break in the reef above alluded to, and 56 fathoms within its northern border.

The Kotu Group consists of a number of small islands, from whose shores considerable tracts of reef extend at sea-level.

The only island of this group on which I landed was Hafeva. I found no raised coral-rock, but a loose sandy formation which attained a height of some 12 feet at the shore. The interior of the island is depressed and occupied by a marsh. There is a wide gap [504] among the reefs on the western side, with a depth of some 8 fathoms, forming an anchorage which was at one time used by whalers. Of the other islands of the Kotu Group, three show the deeply undermined cliffs characteristic of raised coral-islands; but two of them, Kotu and Matuku, as already stated, recall, in their reddish-brown cliffs and peculiar outline, the tuff islands of Mango and Nomuka-iki of the southern part of the Hapai Group (see p. 598).

It seems clear that the long reef of the Hapai Group must be regarded as a barrier-reef or an imperfect atoll. The shoals and islands situated within the concavity of the reef, both the northern ones and those of the Kotu Group, probably either rest on or are parts of the mass on whose eastern and southern slopes the reef has grown, and the volcanic character which I thought I recognized in two of the latter offers some evidence as to the kind of formation of which the basis is composed.

The outer line of reefs, lying some four miles to the south of the main one, and concentric with it, is a very remarkable feature. Its relation to that reef seems to imply that it is of an older date, and accords very well with the view that the reefs are slowly growing outwards on the slopes of a submerged mound. It must be observed, however, that in the northern part of the great reef, in the neighbourhood of the larger islands, there appears no reason for supposing that the reef is moving away from the centre of the group, for it is bordered by flourishing coral-reefs on the western as well as on the eastern side.

(Tongatabu)

133 marked on the chart, resembling on a small scale the great Hapai barrier to the north.

Tongatabu is the largest island of the group. It is some 22 miles in greatest length, and of an irregular crescent shape, with its convexity presented to the south. Considerable tracts along the northern shore are not above the reach of the highest tides; but the level gradually rises towards the convex border, and the highest part is at the south-east, opposite Eua.

● (504) An extensive shallow area lies to the north of the island. Opposite the middle of the northern shore, and extending for about a third of the whole of its length, there is a large basin, which forms the harbour of Nukualofa. It has an average depth of 15 fathoms, and communicates with the outer water by a deep channel on the eastern side.

A wide shallow area, having a depth of from 6 to 9 fathoms, extends from the western point of the island eastward, bounding the basin and eastern channel on the north. Along the outer or seaward margin of this area coral reefs grow up to the surface, forming a more or less continuous barrier on the east and north-west. To the north, however, the line of reefs is interrupted, and here shallow banks (though apparently without reefs) extend for some 15 miles in the direction of the Nomuka Group. Several islands, some of sand, some of coral rock elevated about 15 feet, are dotted along the reefs on the north of the harbour and eastern channel.

The interior of Tongatabu is partly occupied by an irregular and shallow lagoon, which communicates with the sea on the north.

Regarding the island and the shallow tract to the north as a whole, we find an area whose circumference, represented by the convex border of the island on the south, and the shallow 9-fathom area, on which reefs have grown, to the north, stands at a higher level than the central part, represented by the lagoon and the 15-fathom basin.

In mentioning this island, Darwin pointed out* that "it resembles either an up-raised atoll, with one half originally imperfect, or one unequally elevated." The gaps in the line of reef along the northern margin show that the atoll was imperfect; but the gradual rise of the land towards the convex side, and the fact that it attains its highest point where it most nearly approaches the greatly elevated island of Eua, appear to point strongly to the conclusion that it has also been unequally elevated.

(134) The island is formed of coral limestone throughout, and in many places this rock lies at the surface. In the grassy roads of the town of Nukualofa one often meets with flat patches of coral, many feet in diameter, on which the lines of astreids or madrepores are seen radiating from a common centre. Elsewhere the rock is covered with a layer of reddish-brown clay, which in some cases attains many feet in thickness †.

The contour of Tongatabu is flat or presents gentle undulations,

* 'Coral Reefs,' 3rd ed. p. 177.

† A similar clay overlies the limestone formation of Vavau.

/11 cont./

- 131 Archipelago comprises 159 predominantly small islands scattered between approximately 15 degrees and 23 degrees latitude south and 173 degrees and 176 degrees longitude west. The entire land area amounts to approximately 696 square kilometers. (1)

(113)
(114)

1. = 268.9 square miles, according to the list in A. H. Wood, A History and Geography of Tonga /cited in English/, Auckland, 1945, p. 109; as yet, completely reliable information does not seem to exist; however, the area of 997 square kilometers quoted by W. Geisler (Allgemeine Landerkunde von Australien und Ozeanien /General geography of Australia and Oceania/, Hannover 1931. p. 21) is probably too high.

The largest of the 36 inhabited Tonga Islands are Tongatapu (2)

(194)
(656)

2. The new spelling in Tonga, determined by government ordinance, definitively uses p for the sound midway between p' and b; the spoken sound ng is now also written out (Formerly it was simply g). "Tonga Government Gazette" /cited in English/, March 31, 1943).

with approximately 256 square kilometers and Vava'u with approximately 89 square kilometers. (3)

3. Wood, loc. cit. p. 96, 99.2 square miles for Tongatapu; p. 104, 34.6 square miles for 'Uta Vava'u.

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The inhabited islands of the Archipelago, which is partly of volcanic, partly of coral origin, and extends mainly in a north-northeast, south-southwest direction, are mostly coral limestone formations and were formed through the elevation of atolls or barrier reefs. Geographically and administratively they are divided into the three main groups of Tongatapu (in the south) with the "capital city" of Nuku'alofa, Ha'apai (in the center) with the main harbor Pangai on Lifuka, and Vava'u (in the north) with the main harbor of Neiafu; far to the north lie Niua Fo'ou (evacuated in December 1946 because of a

101
504
731

/11 cont./

101 volcanic eruption) and Niua Toputapu (with Tafahi). 'Ata, the
(504) southernmost island of the Archipelago, was evacuated shortly after
(731) 1861. (4)

4. Following the visit of a Peruvian slave ship.

132 The climate of the Tonga Archipelago, especially as regards the main group of Tongatapu, may be called more subtropical than tropical. (The difference with Samoa, for example, is considerable.) For the tropics it is an agreeable climate. Naturally, there is a difference between the northern and the southern islands of the extended Archipelago. Generally speaking, the maximum temperature lies between approximately 27 to 32 degrees Celsius; the mean temperature amounts to approximately 21 to 27 degrees Celsius. There is no sharp, regular seasonal change, so that one can scarcely speak of a "rainy season" and a "dry season." Rain may fall in every month. The division summer/winter is, however, justified, for heavier rains /12/ occur more often in the months from December to April (summer), along with higher temperatures and shifting, often easterly winds. In these months hurricanes may also occur. Lower temperatures (often with rather cool nights, especially on Tongatapu), along with usually lighter rainfall, or absence of rainfall for months and prevailing east-southeast (southeast) trade winds, are observed most years from May to November. Sometimes persistent droughts occur in the months of October to December.

133 Earthquakes are quite frequent, but generally so slight that they do not cause particular damage.

134 The Tonga Islands are relatively fertile (aside from soil depletion occurring on several densely populated islands). Vegetation
137 is in general luxuriant. The inhabited and several of the uninhabited
241 islands are almost completely covered with more or less well-tended plantings of the natives, save for the strips of bush around the edge